

FIGURE 1
(PRIOR ART)

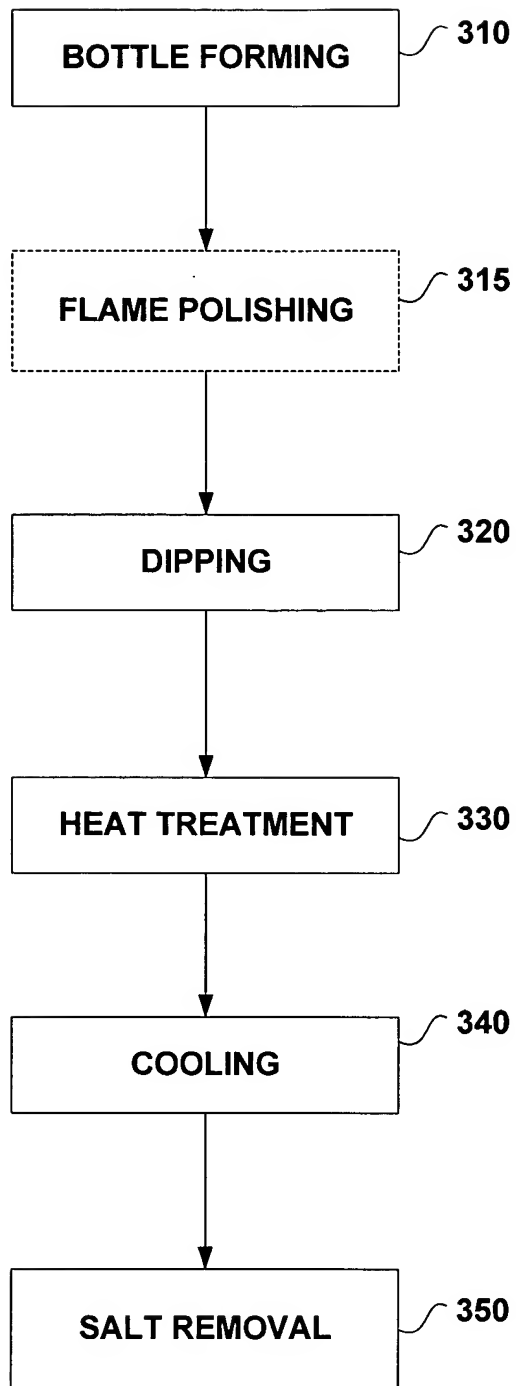


FIGURE 2

FLAME POLISHING

Induced Defects (50 micron) on flat plates

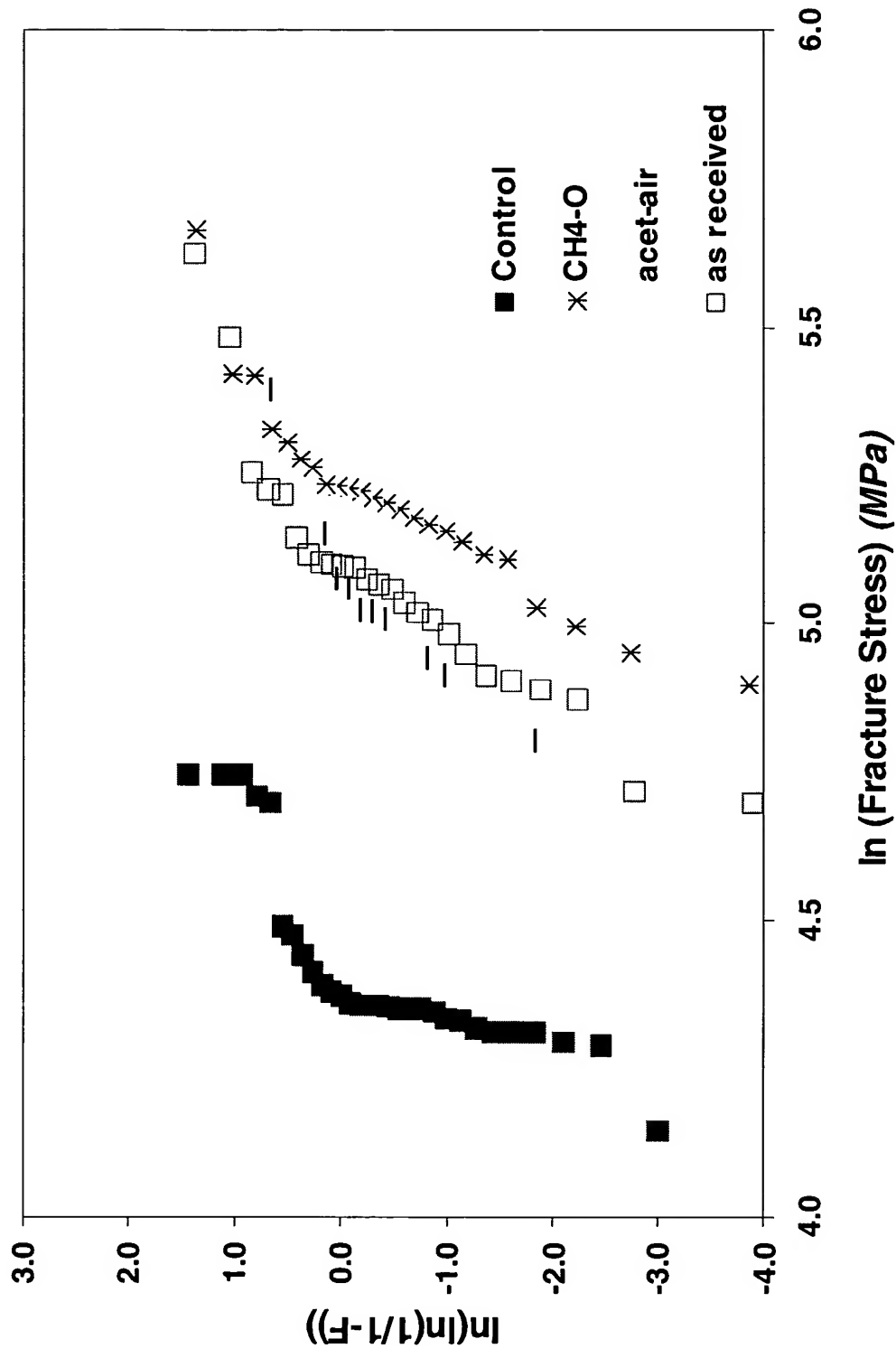


FIGURE 3

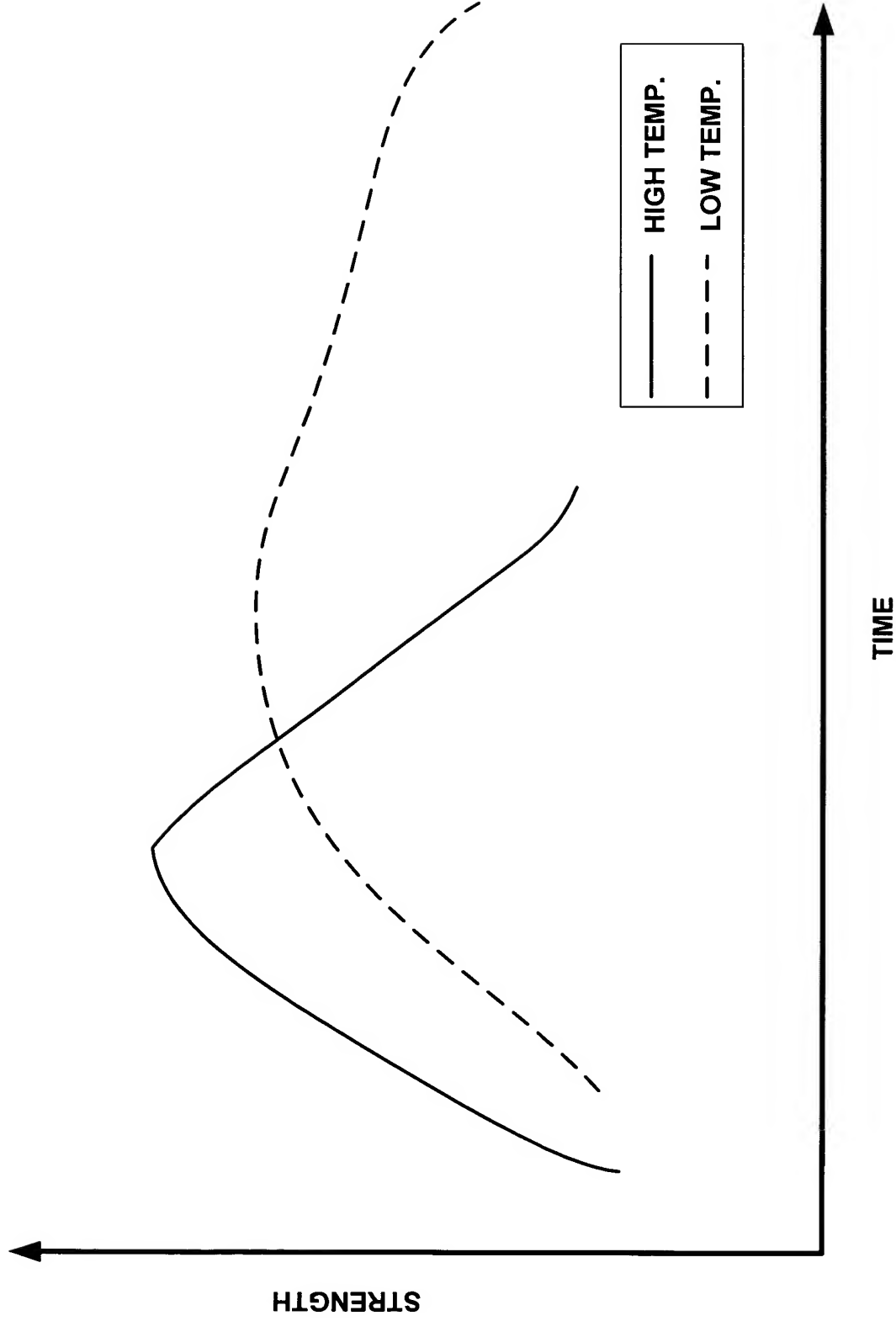


FIGURE 4

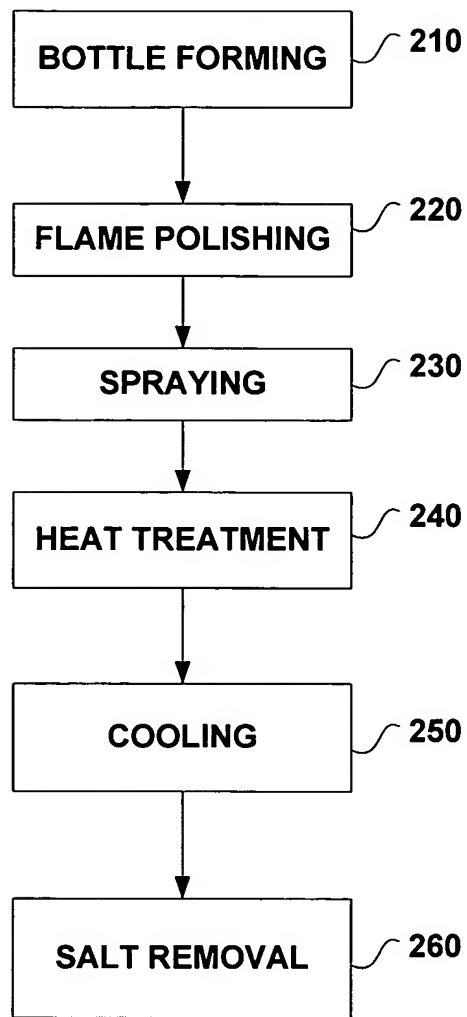


FIGURE 5

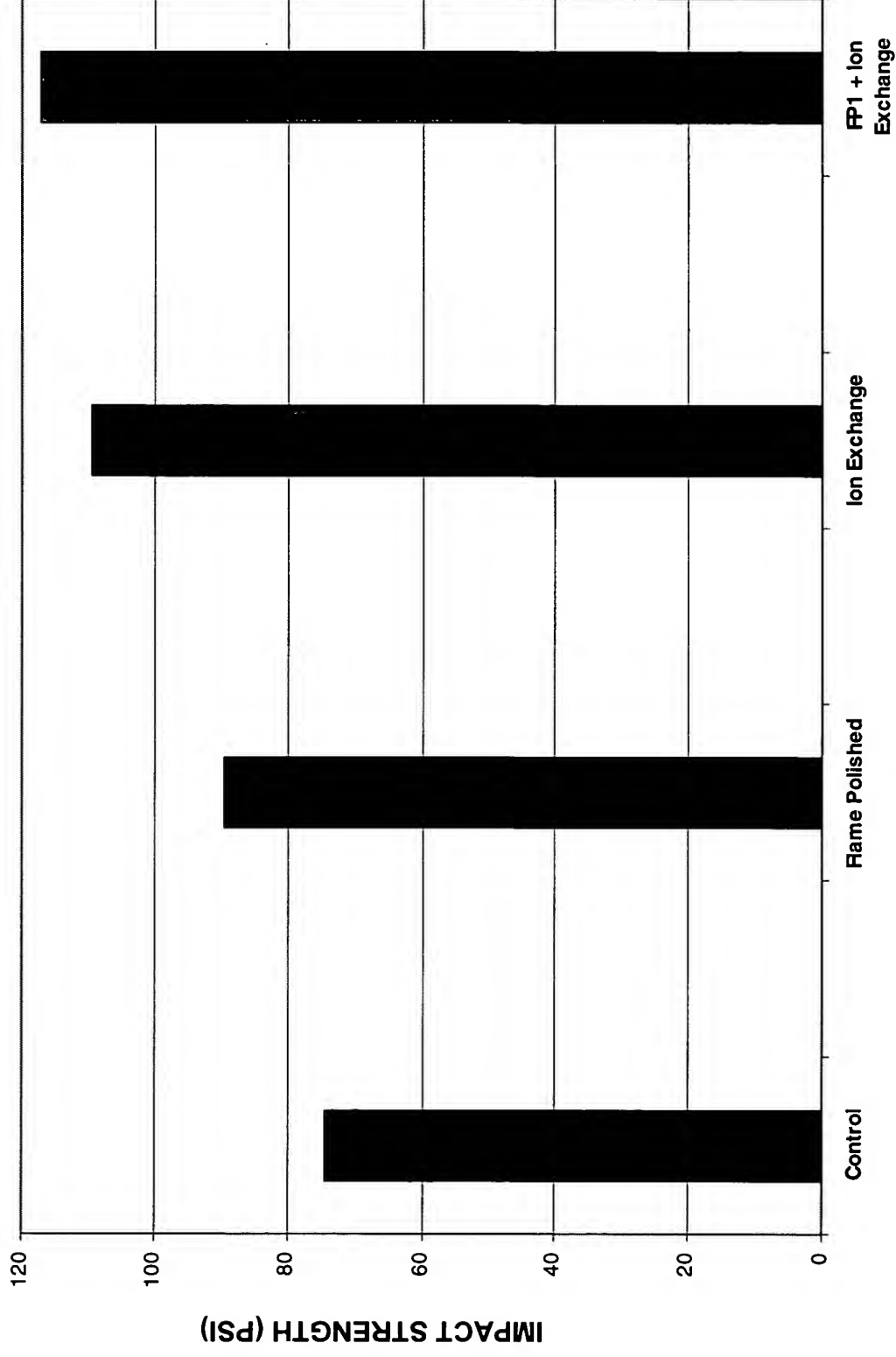
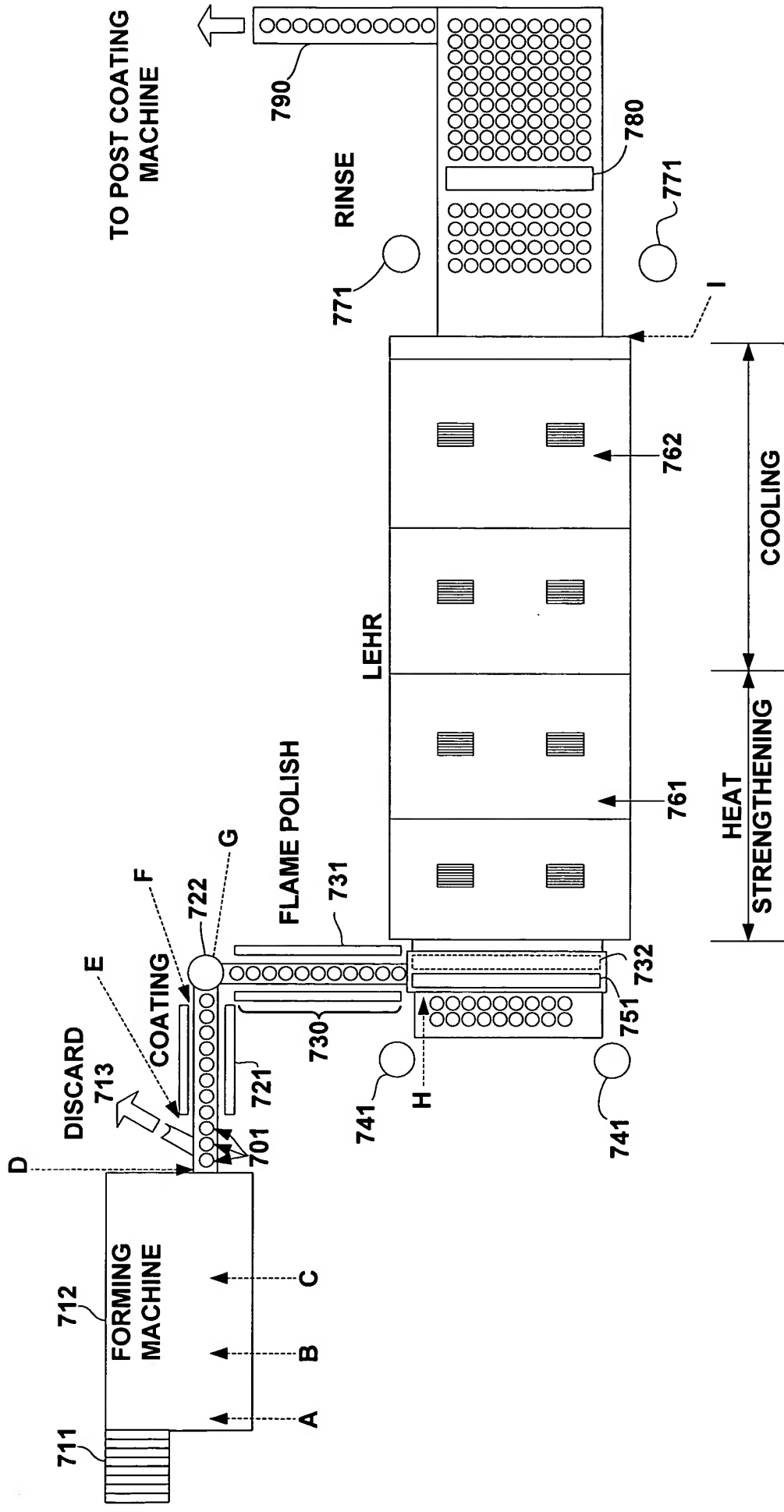


FIGURE 6

700

FIGURE 7



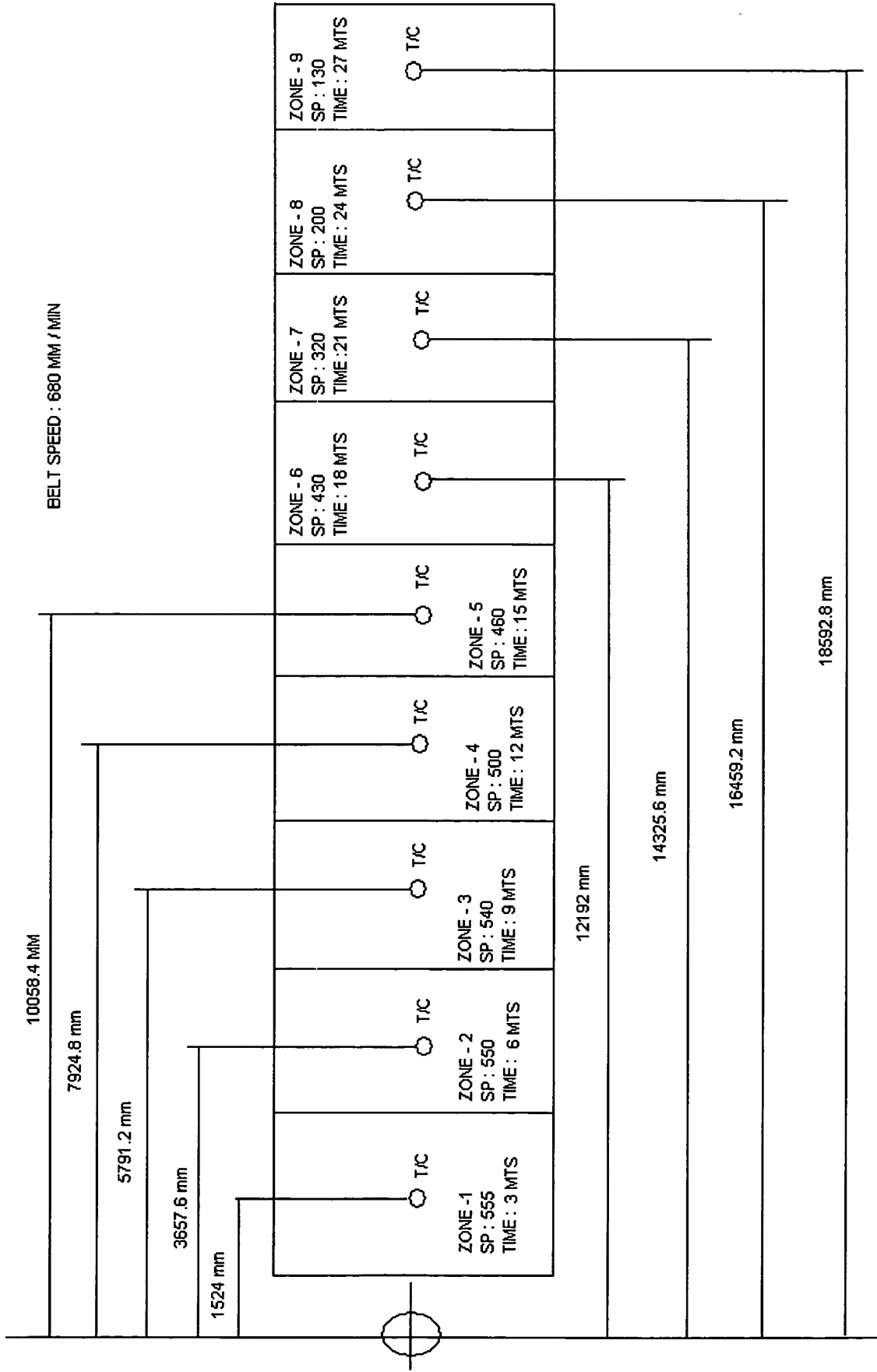


FIGURE 8A

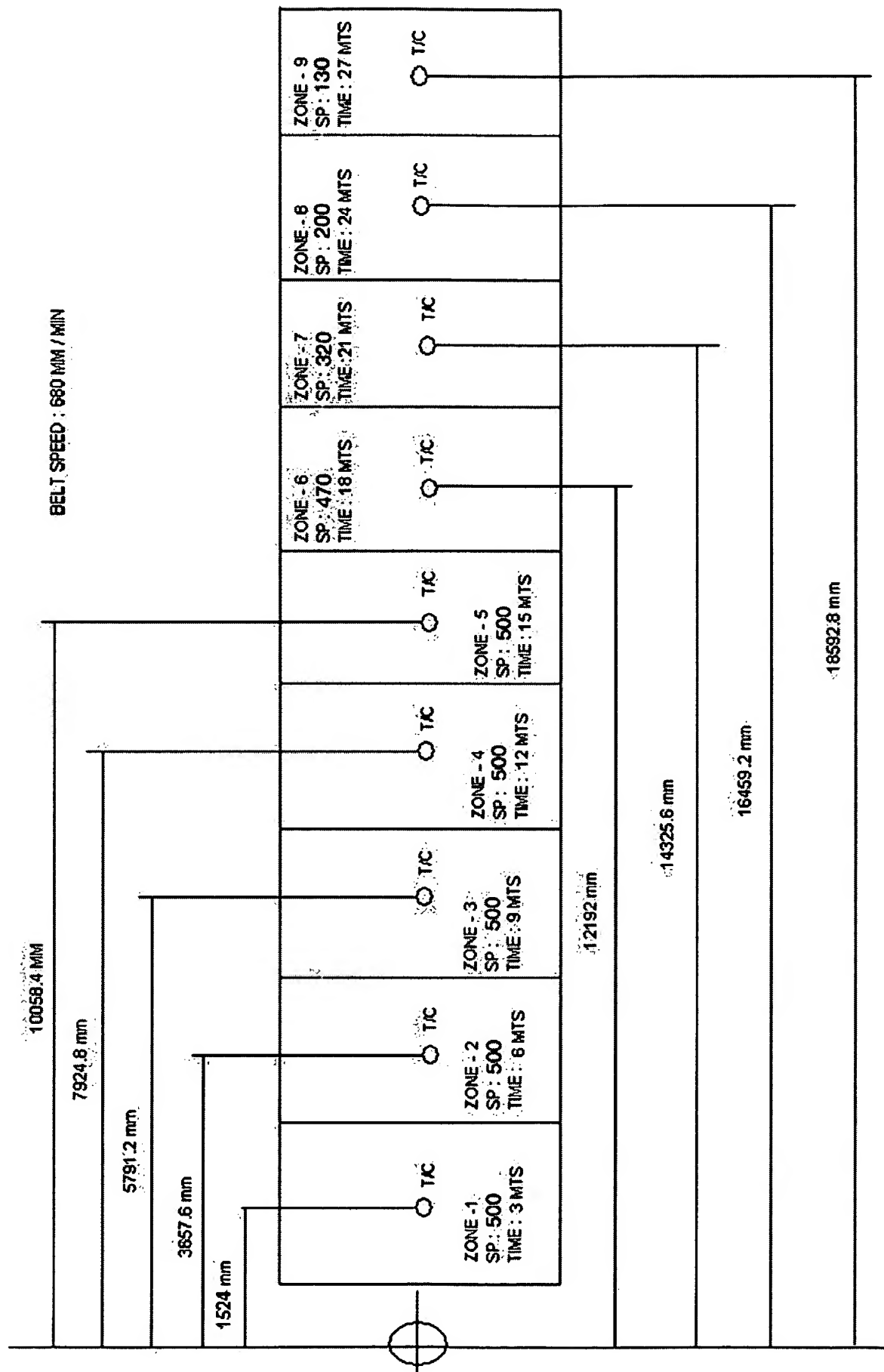


FIGURE 8B

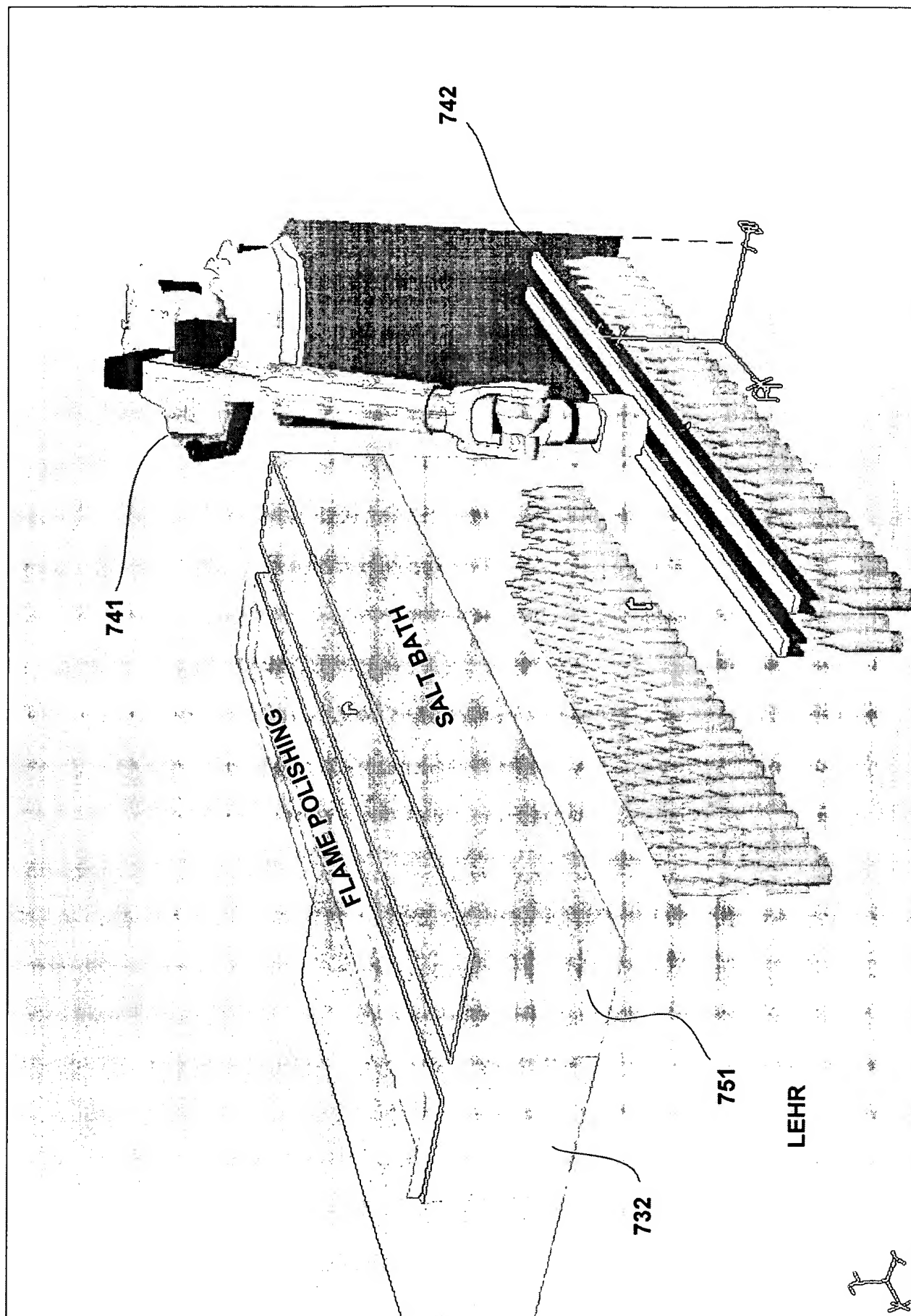


FIGURE 9

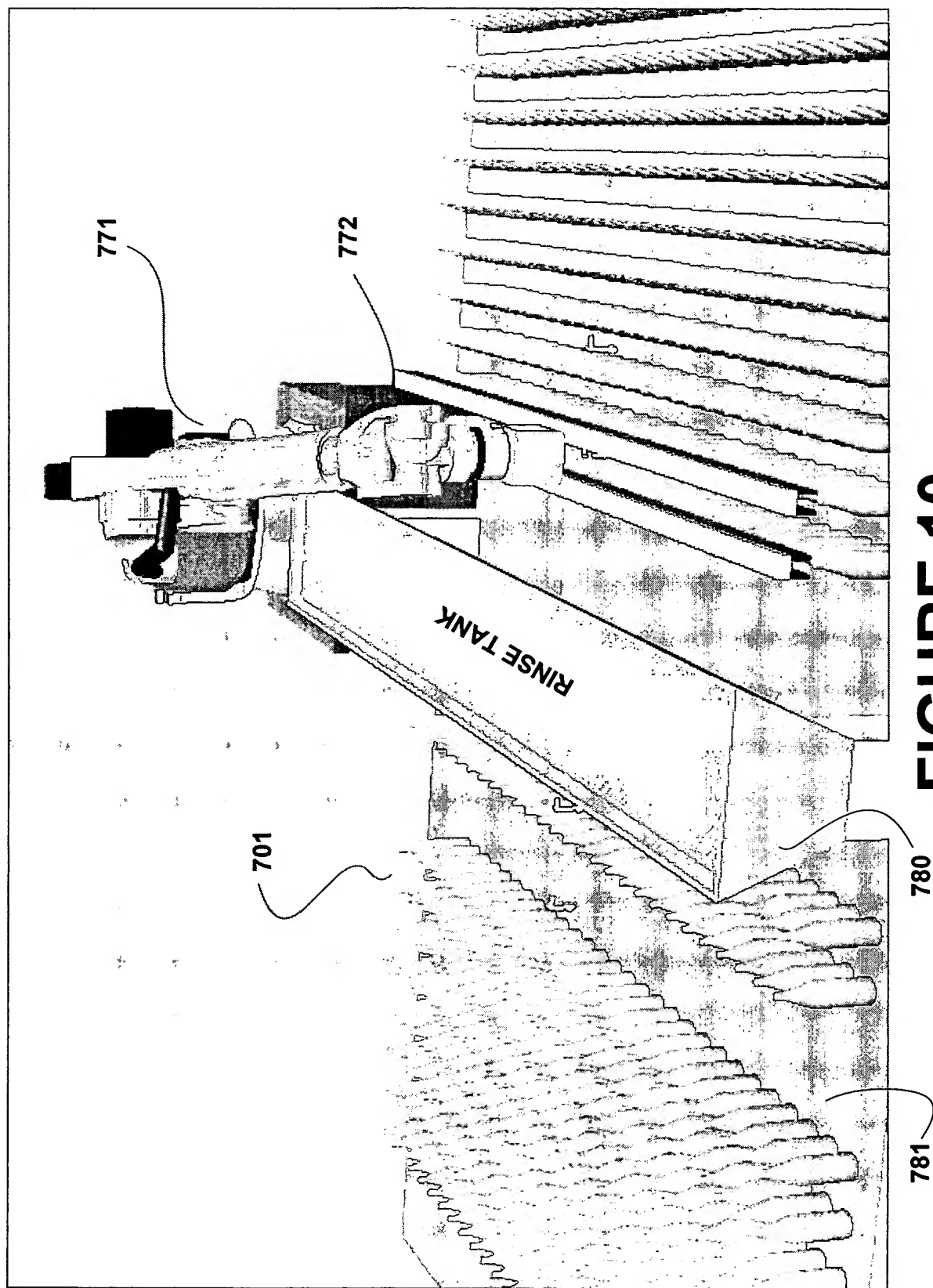
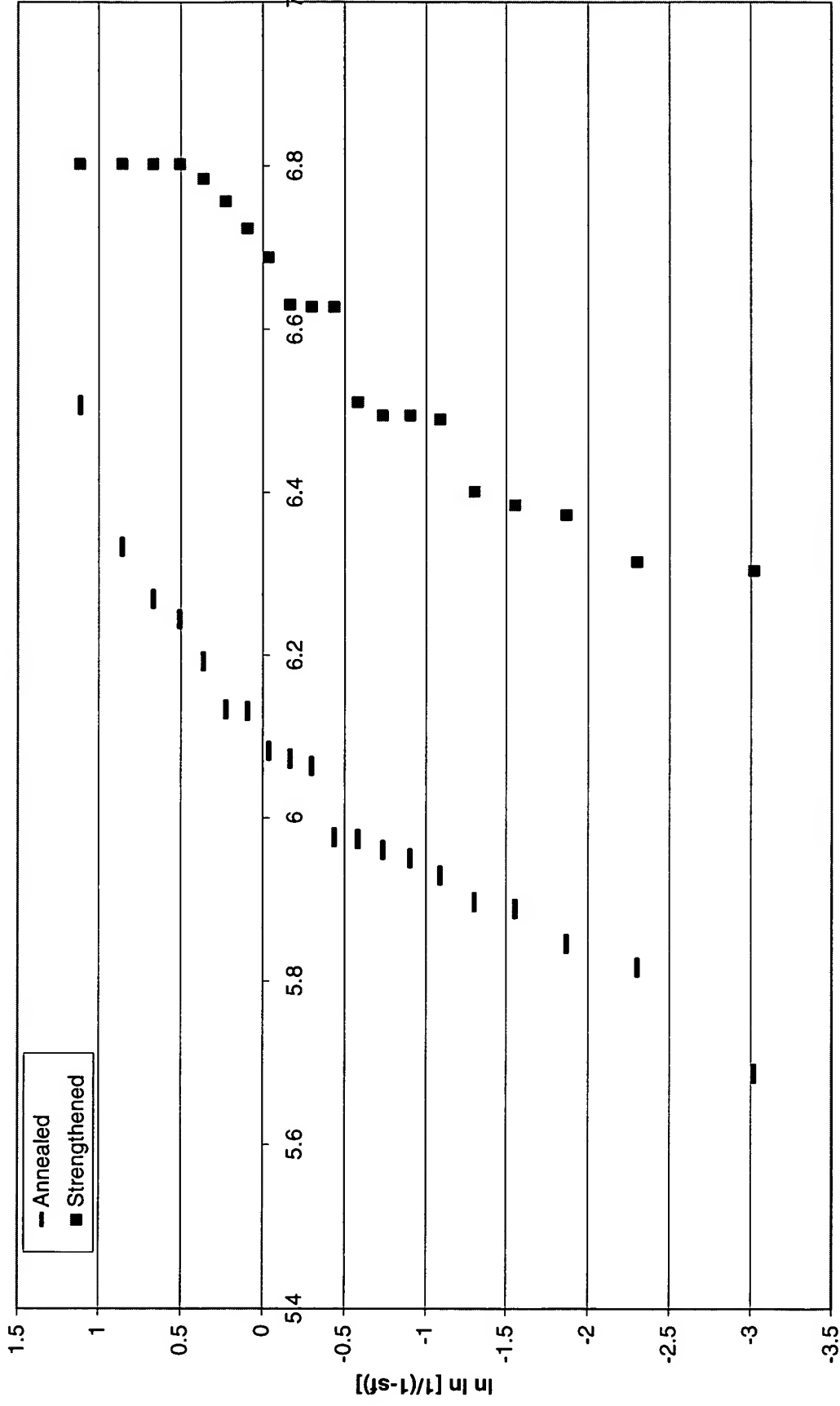


FIGURE 10

RUN NO. 1

Pre-heat 1 m @ 510°C; dip 600°C; Flame Polish - Side and Bottom; 4 in/sec; Strengthen 20 m @ 520°C



$\ln (sf)$

FIGURE 11

RUN NO. 2

Pre-heat 5 m @ 510°C; dip 630°C; Flame Polish - Side and Bottom; 4 in/sec; Strengthen 20 m @ 520°C

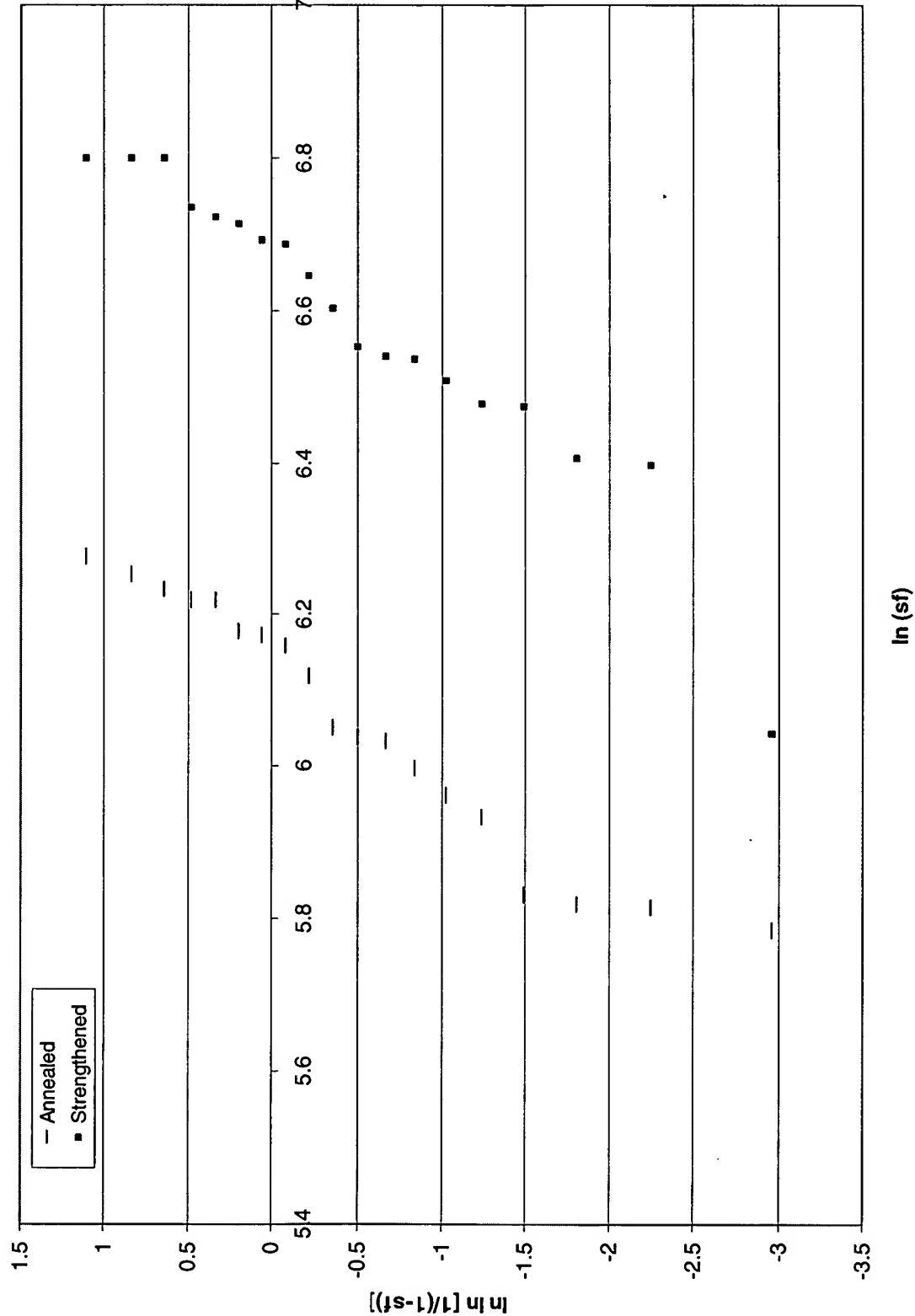


FIGURE 12

RUN NO. 3

Pre-heat 5 m @ 550°C; dip 615°C; Strengthen 20 m @ 500°C

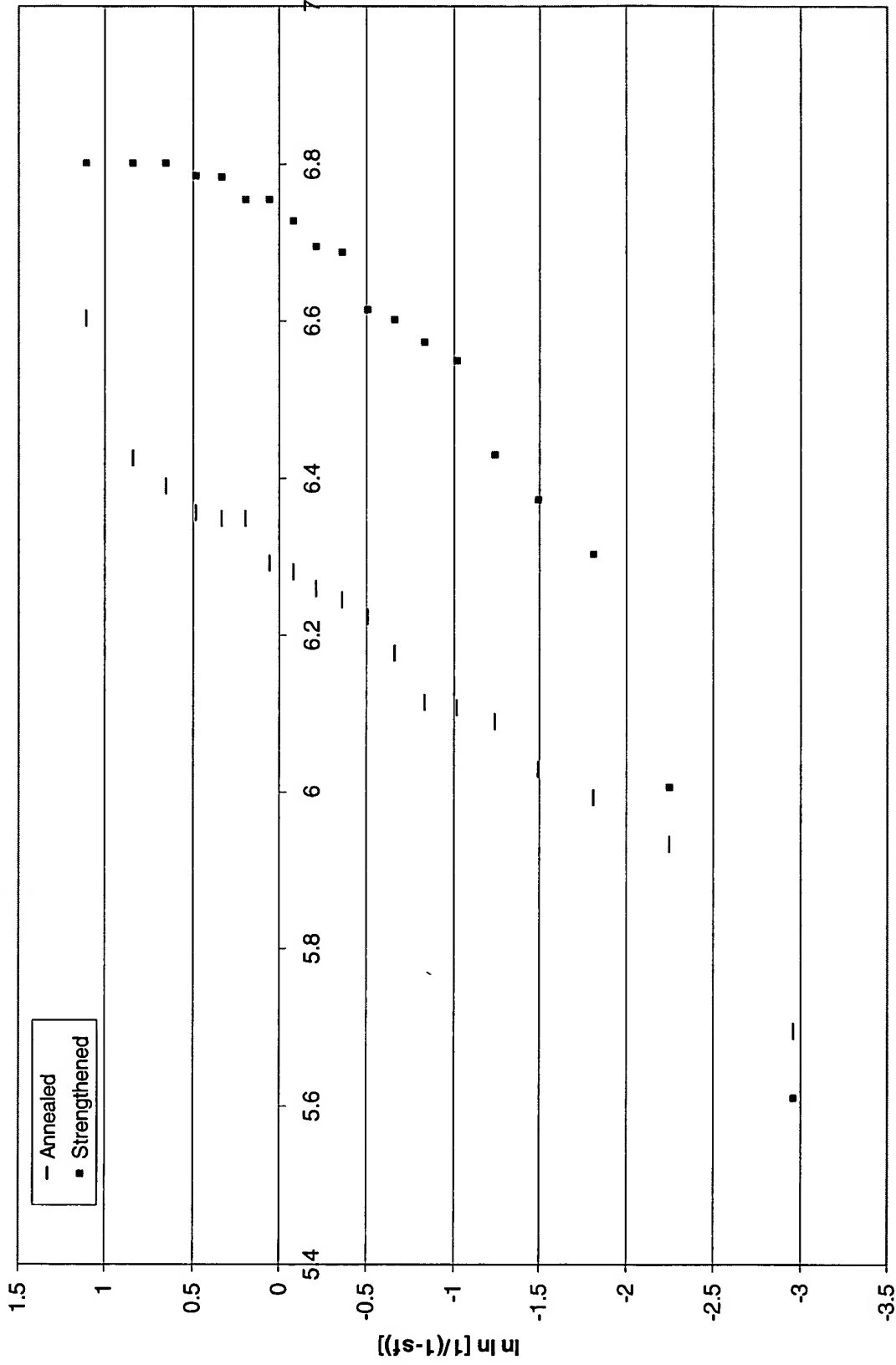


FIGURE 13

RUN NO. 4

Pre-heat 5 m @ 510°C; dip 600°C; Flame Polish - Side and Bottom; 4 in/sec; Strengthen 20 m @ 480°C

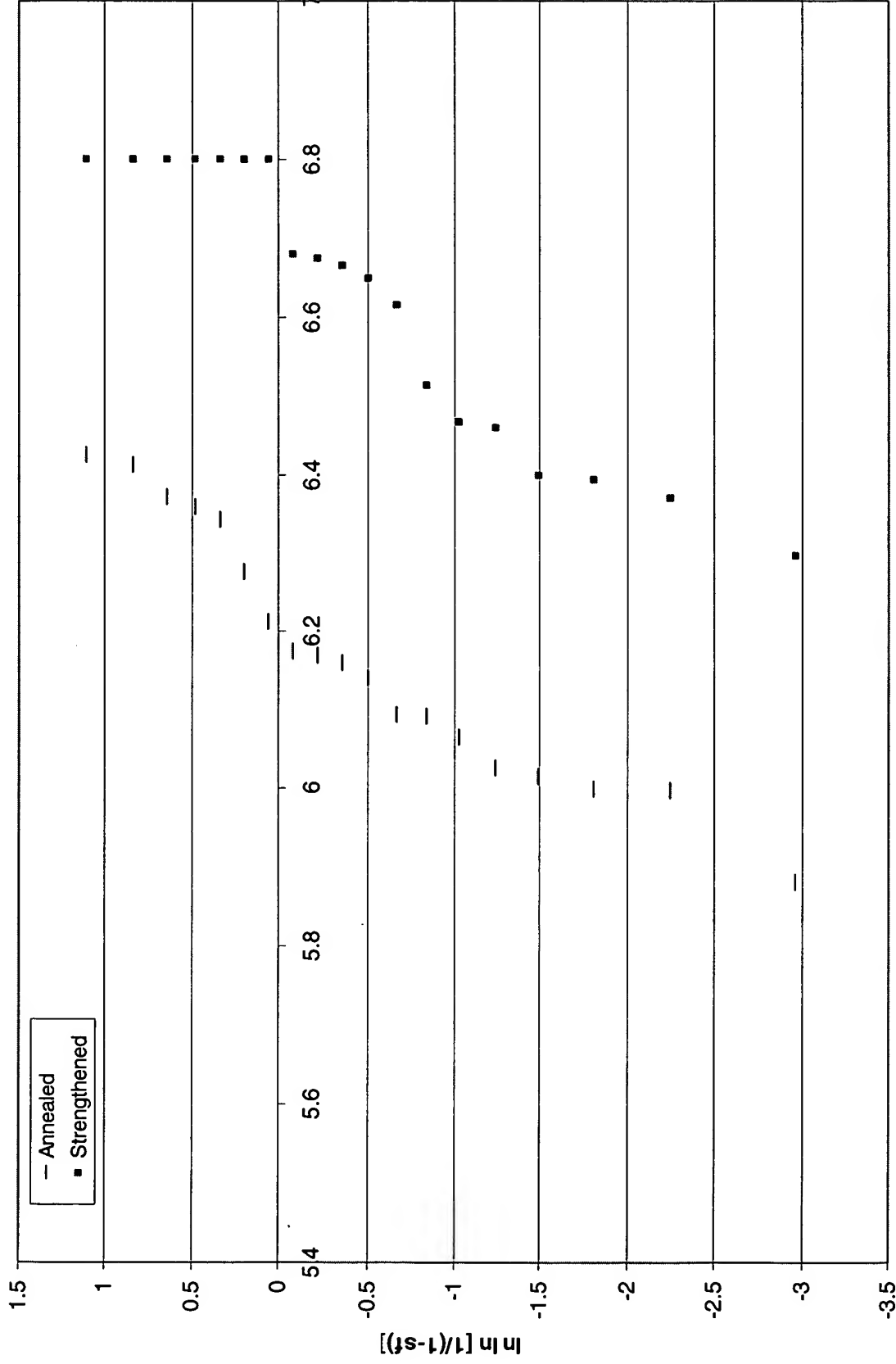


FIGURE 14

RUN NO. 5

Pre-heat 5 m @ 510°C; dip 600°C; Flame Polish - Side and Bottom; 4 in/sec; Strengthen 20 m @ 520°C

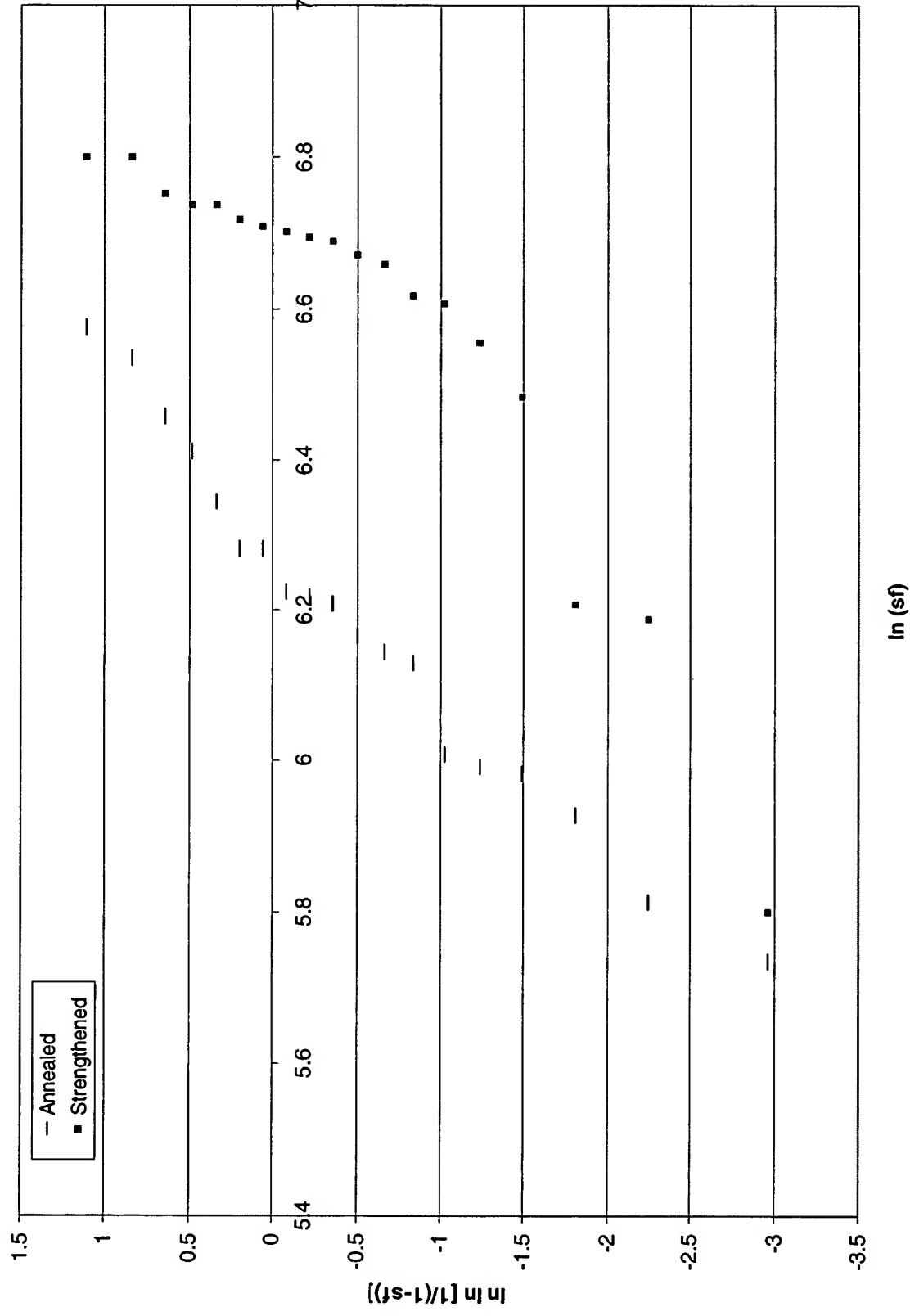


FIGURE 15

RUN NO. 6

Pre-heat 1 m @ 550°C; dip 615°C; Strengthen 20 m @ 500°C

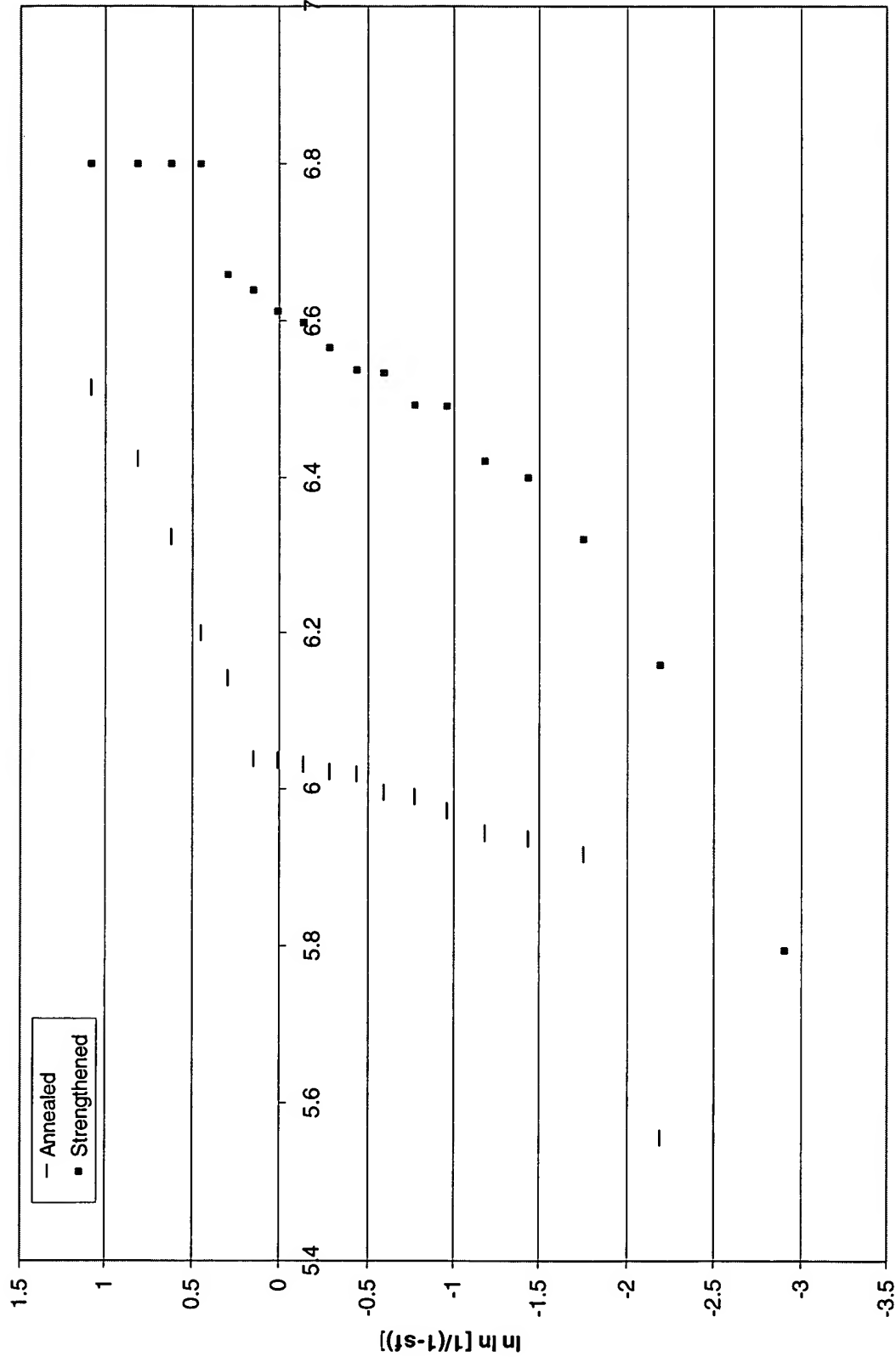


FIGURE 16

RUN NO. 7

Pre-heat 1 m @ 510°C; dip 600°C; Flame Polish - Side and Bottom; 4 in/sec; Strengthen 20 m @ 480°C

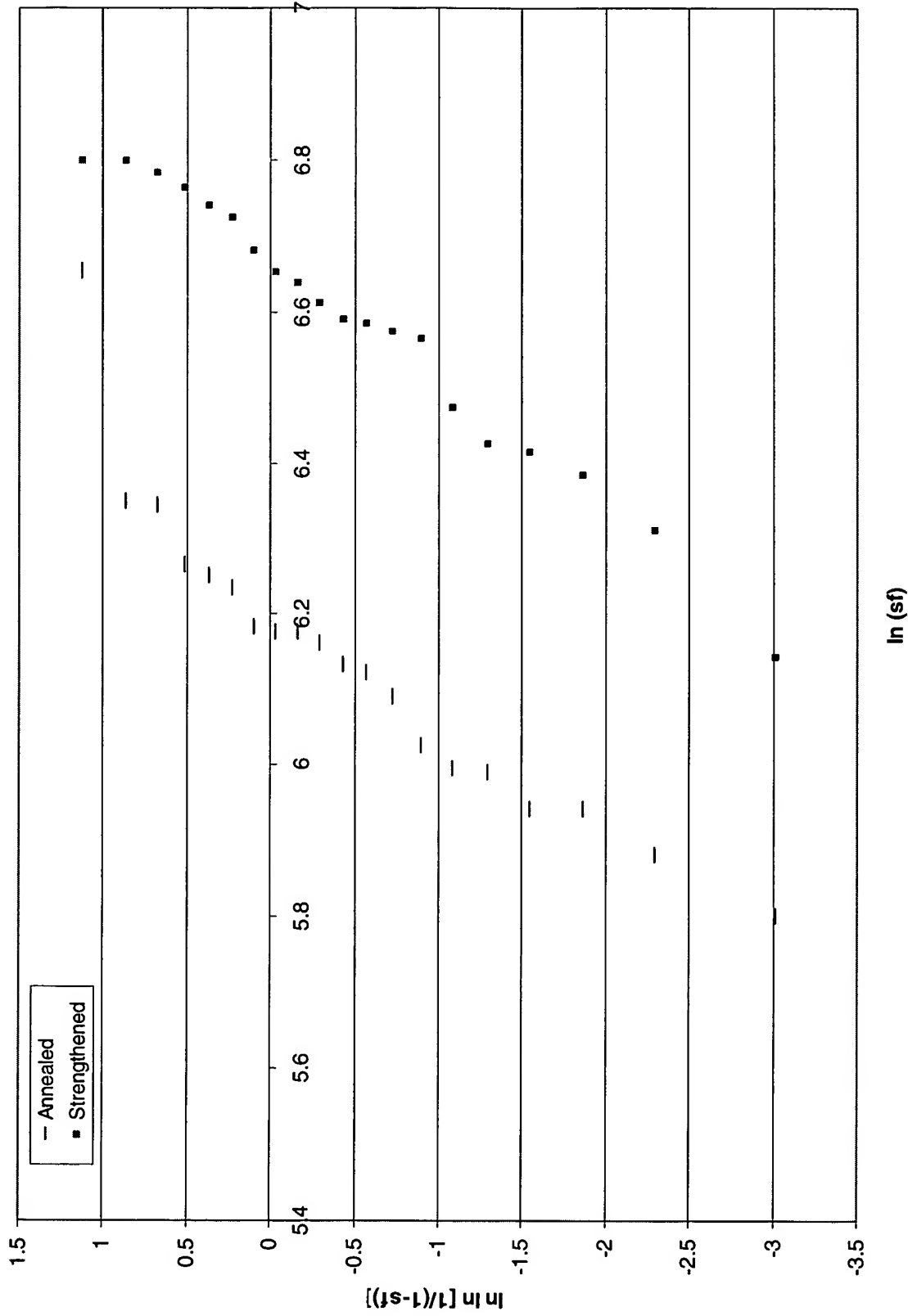


FIGURE 17

RUN NO. 8

Pre-heat 5 m @ 510°C; dip 600°C; Flame Polish - Side and Bottom; 4 in/sec; Strengthen 20 m @ 520°C

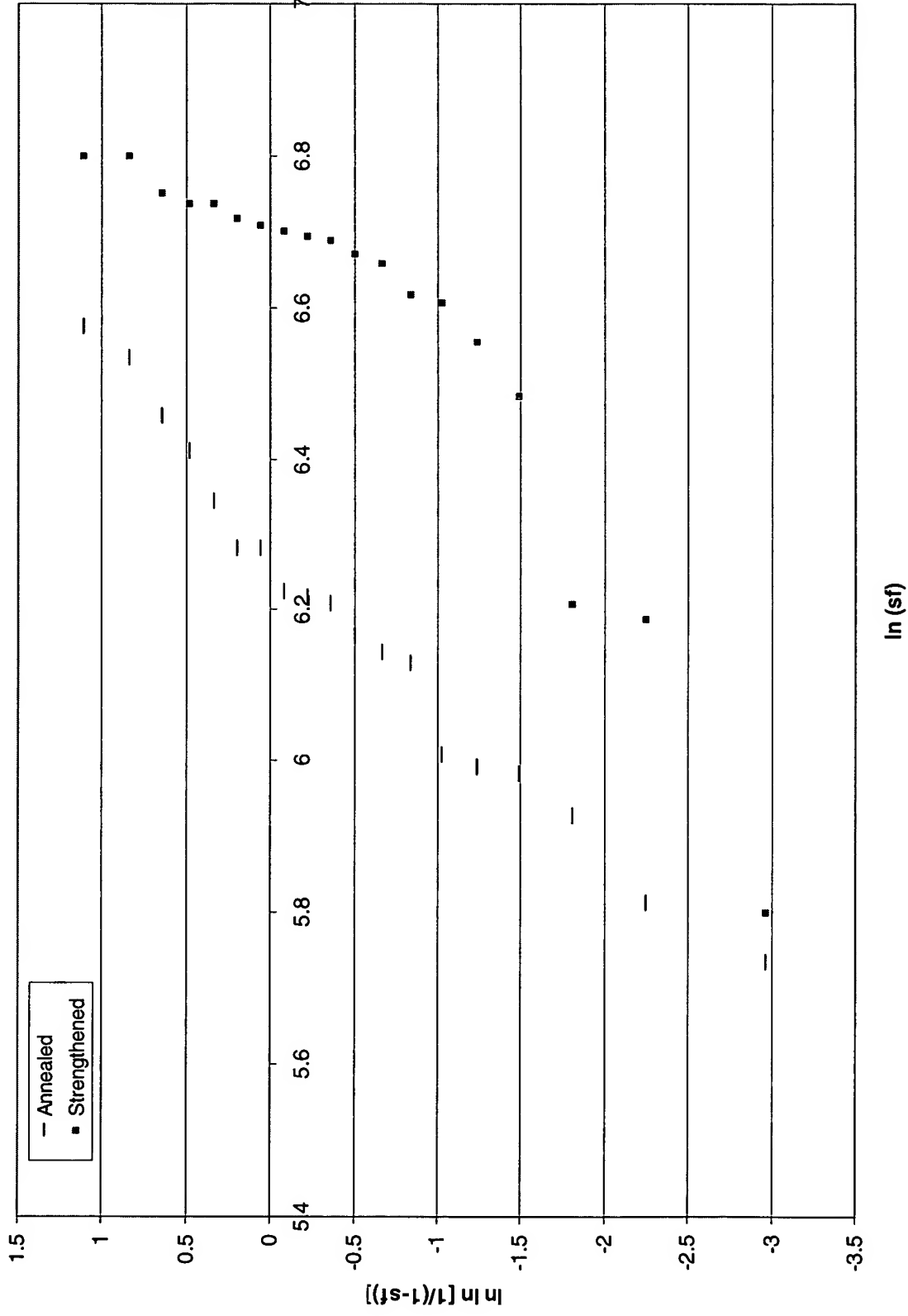


FIGURE 18

RUN NO. 9

Pre-heat 5 m @ 550°C; dip 615°C; Strengthen 20 m @ 500°C

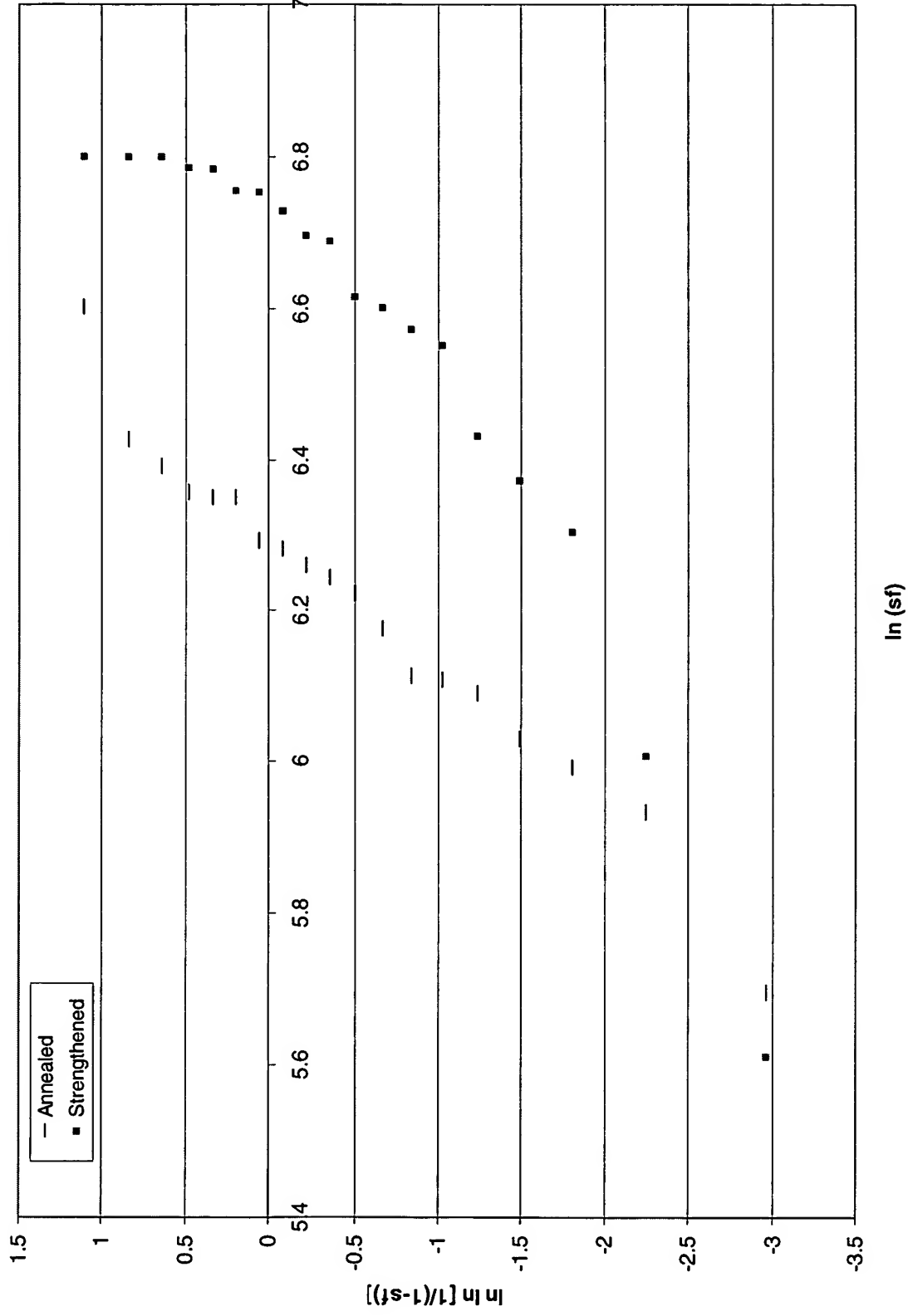


FIGURE 19

RUN NO. 10

Pre-heat 5 m @ 550°C; dip 615°C; Strengthen 20 m @ 500°C

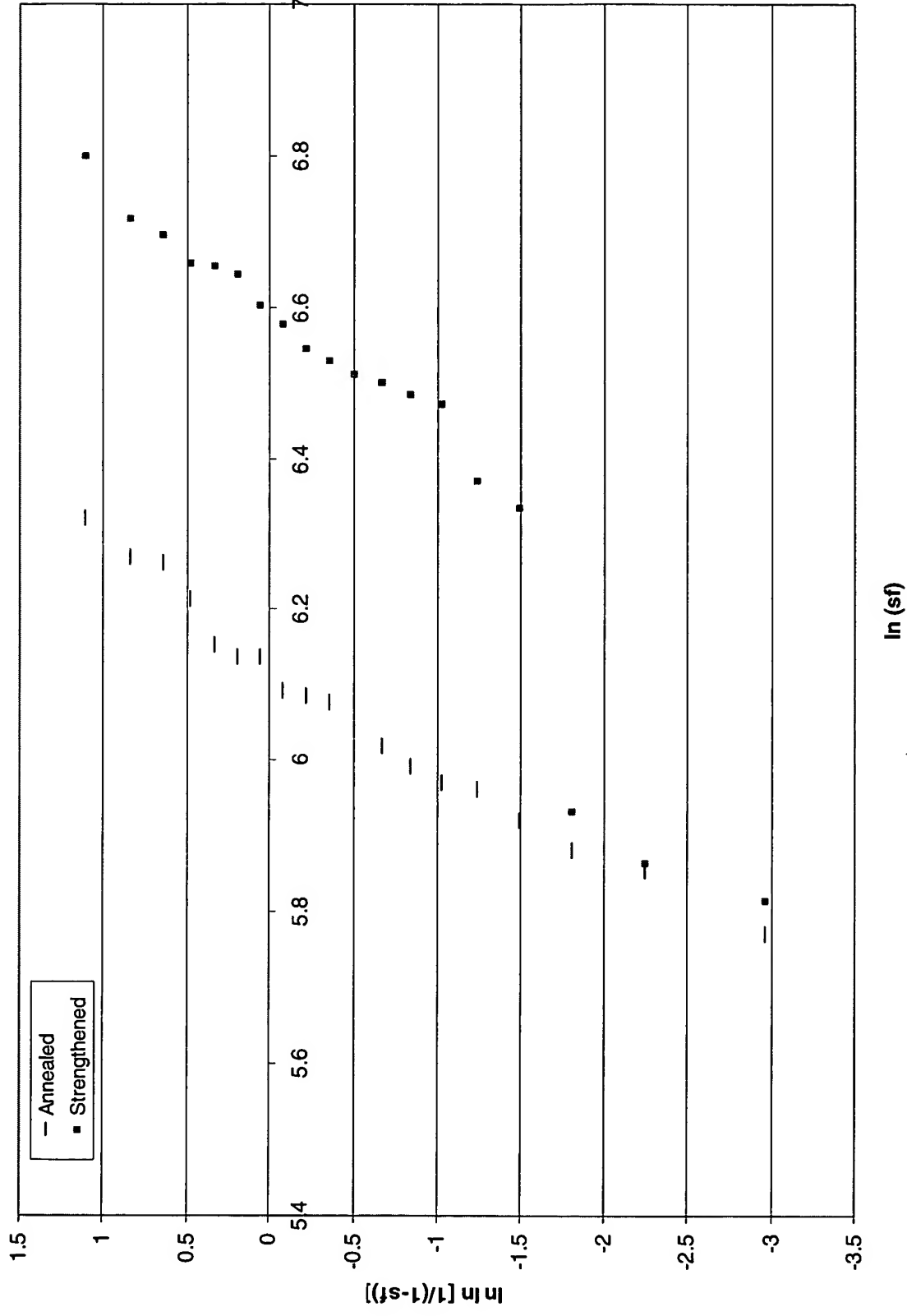


FIGURE 20

Weight vs. Increased glass strength

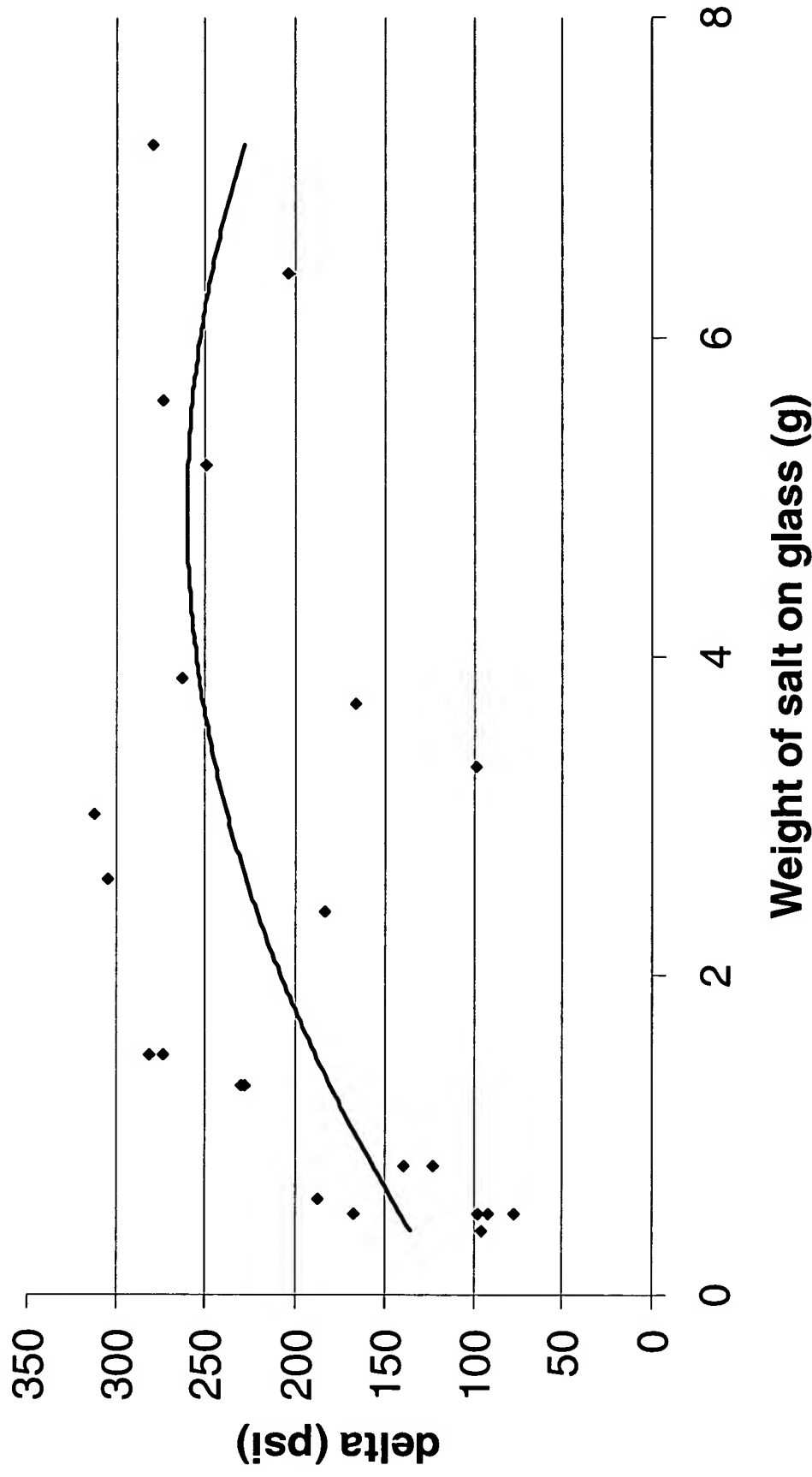


FIGURE 21

Exchanges performed at 520C for 20 minutes after dips in either 48 mol % KNO_3 - 52 mol % KCl or 45 mol % KNO_3 - 55 mol % KCl

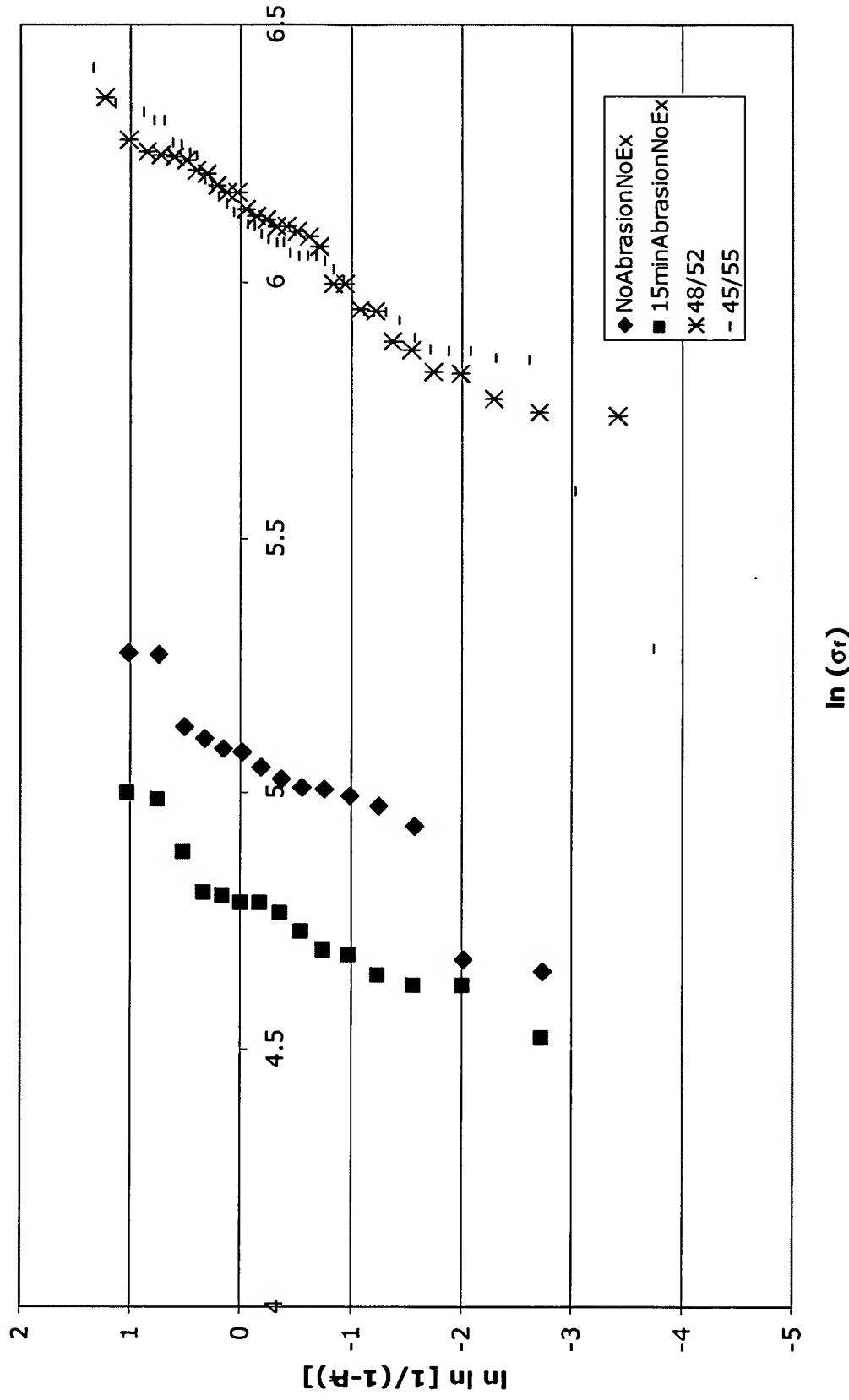
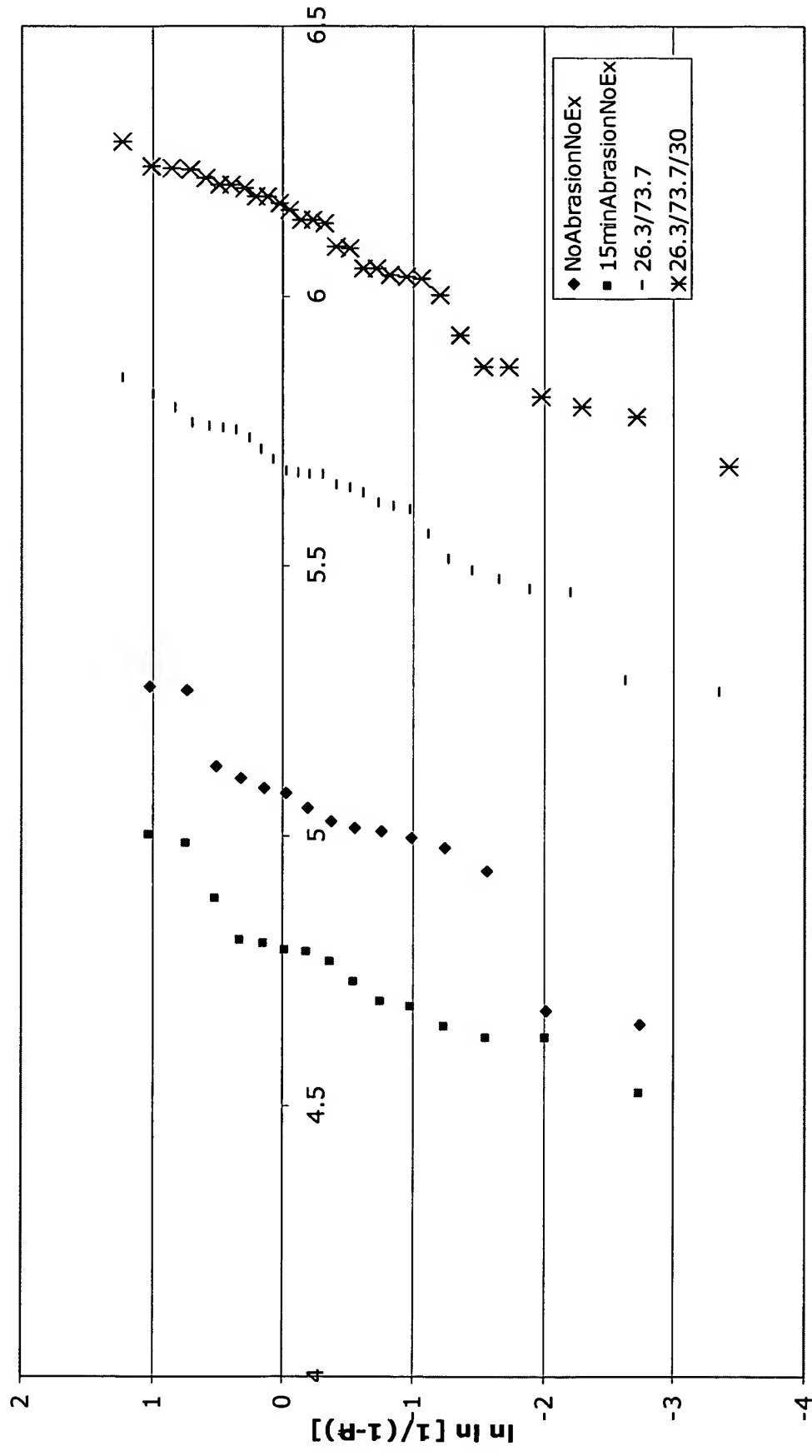


FIGURE 22

Rods exchanged at 520C for 20 minutes in 26.3 mol % K2SO4, 73.7 mol %KCl
and 20.2 mol % K2SO4, 56.7 mol % KCl and 23.1 mol % KNO3.



$\ln(\sigma_r)$

FIGURE 23